AIR COOLED CONDENSING UNIT SCHEDULE — ACCU

TAG	PERFORMANCE				ELECTRICAL DATA					MIN OPER. AMB	ASSOCIATED UNIT	NOTES	BASED ON MFR/MODEL
	NET MBH	OA AMB.	KW	EER	V	PH	FAN QTY	UNIT MCA	UNIT MOCP				
ACCU-1	103	95	9.18	11.14	280	3	2	47	60	40	AHU-1	1	JCI J10YC

NOTES: 1. HOT GAS BYPASS

AIR HANDLER SCHEDULE — AHU

TAG	DESCRIPTION	COMPONENT	TOTAL CFM	OUTSIDE AIR CFM	FAN DATA						FAN MOTOR DATA					COIL DATA									FILTER DATA					REMARKS	BASED ON MFR/MODEL
					SP TOTAL	SP Ext	TYPE	DIA	OUT VEL	RPM	HP	RPM	V	PH	HZ	TYPE	FACE VEL	TOTAL MBH	SENS MBH	EDB °F	EWB °F	LDB °F	LWB °F	STM LBS/HR	STM PSI	TYPE	EFF %	FACE VEL	INITIAL APD	FINAL APD		
AHU-1	SERVES LAB 322	SUPPLY FAN	1880	700	2	1.5	FC	9x9	1882	1717	2	1800	208	3	60															ACCU-1 MATCHING	YORK SOLUTION
		HEATING COIL														STEAM	495	92	–	44	–	90	–	102	2							
		COOLING COIL														DX	495	97	58	83	70	55	54									
		FILTER																								CARTRIDG	30	495	13	2		
		MIXING BOX																														

NOTES:

UNIT VENTILATOR SCHEDULE — UV

TAG	AIRFLOW (CFM)	MAX O.A. (CFM)	MIN O.A. (CFM)	BUILDING	CABINET TYPE	MOTOR DATA						MIN LAT	HEATING COIL DATA						LOUVER	FILTER TYPE	NOTES	BASED ON MFR/MODEL
						QTY	HP	RPM	V	PH	HZ		CAP. (MBH)	LBS (2 PSIG)	EWT °F	TD °F	GPM	WPD (FT WG)				
UV-106	1500	600	200	3	VERTICAL	2	1/10	1075	115	1	60		105.3	–	180	20	10.5	<10		THROWAWAY	1, 4, 5	TRANE VUV
UV-107	1500	600	480	3	HORIZONTAL	1	1/4	1075	115	1	60		105.3	–	180	20	10.5	<10		THROWAWAY	2, 4, 5	TRANE HUV
UV-108	1000	350	200	3	VERTICAL	1	1/4	1075	115	1	60		70.2	–	180	20	7.0	<10		THROWAWAY	1, 4, 5	TRANE VUV
UV-119	1000	350	80	3	HORIZONTAL	1	1/6	1075	115	1	60		70.2	–	180	20	7.0	<10		THROWAWAY	2, 4, 5, 6	TRANE HUV
UV-124	1000	350	160	3	VERTICAL	1	1/4	1075	115	1	60		70.2	–	180	20	7.0	<10	H1	THROWAWAY	1, 4, 5, 6	TRANE VUV
UV-202	1000	350	20	3	HORIZONTAL	1	1/6	1075	115	1	60		70.2	–	180	20	7.0	<10		THROWAWAY	2, 5, 6	TRANE HUV
UV-226	1000	350	80	2	VERTICAL	1	1/4	1075	115	1	60		70.2	73	–	–	–	<10	H1	THROWAWAY	1, 4, 5, 6	TRANE VUV
UV-231	1500	600	80	2	VERTICAL	2	1/10	1075	115	1	60		105.3	110	–	–	–	<10		THROWAWAY	1, 4, 5	TRANE VUV
UV-249	1500	600	380	2	VERTICAL	2	1/10	1075	115	1	60		105.3	110	–	–	–	<10		THROWAWAY	1, 4, 5	TRANE VUV
UV-323	1500	600	480	2	VERTICAL	2	1/10	1075	115	1	60		105.3	110	–	–	–	<10		THROWAWAY	1, 4, 5	TRANE VUV
UV-401	1500	560	200	3	VERTICAL	2	1/10	1075	115	1	60		105.3	–	180	20	10.5	<10	H1	THROWAWAY	1, 4, 5, 6	TRANE VUV
UV-403	1000	350	350	3	VERTICAL	1	1/4	1075	115	1	60		70.2	–	180	20	7.0	<10		THROWAWAY	4, 5	TRANE VUV
UV-413	1000	350	350	3	VERTICAL	1	1/4	1075	115	1	60		70.2	–	180	20	7.0	<10	H1	THROWAWAY	1, 4, 5, 6	TRANE VUV
UV-416	1000	350	350	3	HORIZONTAL	1	1/6	1075	115	1	60		70.2	–	180	20	7.0	<10		THROWAWAY	3, 5	TRANE HUV
UV-421	1000	350	350	3	VERTICAL	1	1/4	1075	115	1	60		70.2	–	180	20	7.0	<10	H1	THROWAWAY	1, 4, 5, 6	TRANE VUV
UV-427	1500	600	160	2	HORIZONTAL	1	1/4	1075	115	1	60		105.3	110	–	–	–	<10		THROWAWAY	3, 5	TRANE HUV
UV-431	1250	440	440	2	VERTICAL	2	1/10	1075	115	1	60		87.8	91	–	–	–	<10	H1	THROWAWAY	1, 4, 5, 6	TRANE VUV

NOTES: 1. TOP DISCHARGE AND FRONT BOTTOM RETURN, WITH REAR O.A. INTAKE. PROVIDE 6" INSULATED FALSEBACK PLENUM AT REAR OF UNIT
2. FRONT DISCHARGE AND BOTTOM RETURN, WITH REAR O.A. INTAKE
3. MOUNT AS HIGH AS POSSIBLE, WITH FRONT DISCHARGE CLEAR BELOW CEILING, BOTTOM RETURN AND TOP O.A. INTAKE.
4. PROVIDED O.A. DUCT COLLAR THROUGH WALL TO MATCH LOUVER CONNECTION.
5. PROVIDE DDC CONTROLS AND DDC THERMOSTAT FOR THE EACH UV.
6. COORDINATE WITH ARCHITECT FOR LOUVER FINISHES

FUME HOOD SCHEDULE — FH

TAG	EMPAC #	CONTROL TYPE	LOCATION	WIDTH IN	DEPTH IN	HEIGHT IN	EXHAUST CFM (MAX.)	EXHAUST CFM (MIN.)	MAKE-UP AIR CFM	NOTES	BASED ON MFR/MODEL
FH-106	FH0290-20	II	LAB 106 (MORRILL III)	72	39	59	630	80	–	1, 2, 6	AIR SENTRY – HBASC6
FH-107	FH0290-21	II	LAB 107 (MORRILL III)	72	39	59	630	80	–	1, 2, 6	AIR SENTRY – HBASC6
FH-108D	FH0290-23	II	LAB 108D (MORRILL III)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
(ED) FH-111	FH0290-24	–	LAB 111 (MORRILL III)	48	39	59	–	–	–	DEMO	–
FH-119	FH0290-26	II	LAB 119 (MORRILL III)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
FH-122	FH0290-27	II	LAB 122 (MORRILL III)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
(E) FH-129	FH0127-01	II	LAB 129 (MORRILL II)	48	–	–	490	55	–	3	–
FH-202	FH0290-29	II	LAB 202 (MORRILL III)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
FH-224	FH0127-02	II	LAB 224 (MORRILL II)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
(E) FH-231	FH0127-03	II	LAB 231 (MORRILL II)	72	–	–	790	100	–	3	–
(E) FH-249B	FH0127-04	II	LAB 249B (MORRILL II)	72	–	–	790	100	–	3	–
(ED) FH-313	FH0290-30	–	LAB 313 (MORRILL III)	48	39	59	–	–	–	DEMO	–
FH-314	FH0290-31	II	LAB 314 (MORRILL III)	48	39	59	490	55	–	2, 4, 6	AIR SENTRY – HBASC4
(ED) FH-315	FH0290-32	II	LAB 315 (MORRILL III)	48	39	59	390	40	–	DEMO	–
(E) FH-322	FH0290-33	I	LAB 322 (MORRILL III)	72	–	–	790	100	–	3	–
(E) FH-321B	FH0127-05	II	LAB 321B (MORRILL II)	48	–	–	490	55	–	3	–
FH-323a	–	II	LAB 323 (MORRILL II)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
FH-323b	–	II	LAB 323 (MORRILL II)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
(E) FH-327	FH0127-06	I	LAB 327 (MORRILL II)	72	–	–	790	100	–	3	–
FH-328	FH0127-07	II	LAB 328 (MORRILL II)	72	39	59	630	80	–	1, 2, 6	AIR SENTRY – HBASC6
FH-401H	FH0290-34	II	LAB 401H (MORRILL III)	72	39	59	630	80	–	1, 2, 6	AIR SENTRY – HBASC6
FH-403	FH0290-35	II	LAB 403 (MORRILL III)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
(E) FH-404A	FH0290-36	I	LAB 404A (MORRILL III)	72	39	59	1170	–	700	5	–
(E) FH-411	FH0290-37	I	LAB 411 (MORRILL III)	72	39	59	1170	–	700	5	–
(ED) FH-412	FH0290-38	–	LAB 412 (MORRILL III)	48	39	59	–	–	–	DEMO	–
FH-413	FH0290-39	II	LAB 413 (MORRILL III)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
(ED) FH-415	FH0290-40	–	LAB 415 (MORRILL III)	36	39	59	–	–	–	DEMO	–
FH-416	FH0290-03	II	LAB 416 (MORRILL III)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
FH-418	FH0127-15	II	LAB 418 (MORRILL II)	72	39	59	630	80	–	1, 2, 6	AIR SENTRY – HBASC6
(E) FH-420A	FH0127-08	I	LAB 420A (MORRILL II)	72	–	–	1170	–	1000	5	–
(E) FH-420H	FH0127-09	I	LAB 420H (MORRILL II)	72	–	–	1170	–	1000	5	–
FH-421	FH0290-02	II	LAB 421B (MORRILL III)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
FH-425	FH0127-10	I	LAB 425 (MORRILL II)	48	39	59	390	40	–	2, 4, 6	AIR SENTRY – HBASC4
(E) FH-426	FH0127-11	I	LAB 426 (MORRILL II)	72	–	–	1170	–	700	5	–
(E) FH-427B	FH0127-12	II	LAB 427B (MORRILL II)	48	39	59	490	40	–	3	–
(ED) FH-428B	FH0290-38	–	LAB 428B (MORRILL III)	36	39	59	–	–	–	DEMO	–
(E) FH-431	FH0127-14	II	LAB 431 (MORRILL II)	48	39	59	490	40	–	3	–

NOTES:
1. NEW 72" FUME HOOD & MATCHING CHEMICAL/SOLVANT CABINET FURNISHED BY OWNER & INSTALLED BY G.C. REFER TO SPEC. FOR ADDITIONAL INFO.
2. HOOD DESIGNED FOR 80 FPM ACROSS SASH (NCLUDE SASH STOP AT 18")
3. HOOD DESIGNED FOR 100 FPM ACROSS SASH (SASH SHALL NOT OPEN MORE THAN 18")
4. NEW FUME HOOD WITH MATCHING CHEMICAL/SOLVANT STORAGE CABINET.
5. EXISTING FUME HOOD MAKE UP AIR SYSTEM TO REMAIN. INSTALL CONTROLS PER CONTROL TYPE AS INDICATED.
6. PROVIDE 3"ø CABINET EXHAUST MOUNTED AT REAR OF FUME HOOD

FAN SCHEDULE — F

TAG	SERVES	TYPE	CFM	TOTAL SP (IN WG)	DRIVE	VOLUME CONTROL	O.V. (FPM)	FAN T.S. (FPM)	RPM	FAN MOTOR DATA					HOUSING		ROOF SUPPORT			DAMPER	ACCESSORIES	BASED ON MFR/MODEL
										HP	RPM	V	PH	HZ	DESIGN	MTL	TYPE	MTL	HGT			
EF-1A	LAB HOOD EXHAUST	CENTRIFUGAL MIXED-FLOW	14000	4	DIRECT	VFD	5748	–	–	25	1770	460	3	60	HIGH-PLUME	NOTE 1	NOTE 3	GALV. STL.	6'-6"	NOTE 2	SEE NOTES	GREENHECK VEKTOR-MD
EF-1B	LAB HOOD EXHAUST	CENTRIFUGAL MIXED-FLOW	14000	4	DIRECT	VFD	5748	–	–	25	1770	460	3	60	HIGH-PLUME	NOTE 1	NOTE 3	GALV. STL.	6'-6"	NOTE 2	SEE NOTES	GREENHECK VEKTOR-MD
EF-1C	LAB HOOD EXHAUST	CENTRIFUGAL MIXED-FLOW	14000	4	DIRECT	VFD	5748	–	–	25	1770	460	3	60	HIGH-PLUME	NOTE 1	NOTE 3	GALV. STL.	6'-6"	NOTE 2	SEE NOTES	GREENHECK VEKTOR-MD
EF-2	EXISTING TO REMAIN																					
EF-3	GENERAL EXHAUST	CENTRIFUGAL	15500	2.5	BELT	VFD	3157	9095	965	20	1725	460	3	60	HIGH-PLUME	AL	NOTE 3	–	6'	NONE	SEE NOTES	GREENHECK VEKTOR-H
EF-4	STEAM ENTRANCE	ROOF FAN	400	.375	BELT	NONE	416	3350	1145	1/6	1725	115	1	60	DOME	AL	RAISED CANT	GALV. STL.	18"	MOTORIZED	SEE NOTES	GREENHECK GB
EF-5	GROWTH CHAMBER	INLINE CENTRIFUGAL	1700	.5	BELT	NONE	628	4350	1141	1/3	1725	115	1	60	INLINE	STL	–	–	–	NONE	SEE NOTES	GREENHECK BSQ

NOTES: 1. MIXED-FLOW FAN HOUSING MATERIAL TO BE WELDED STEEL WITH CORROSION PROTECTION AS SPECIFIED.
2. MIXED-FLOW FANS TO BE PROVIDED WITH FACTORY MOTORIZED BYPASS AND ISOLATION DAMPERS.
3. HIGH-PLUME FANS TO BE INSTALLED ON STRUCTURAL STEEL DUNNAGE MOUNTED TO THE ROOF STRUCTURE. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. THE DILUTION AIRFLOW QUANTITY DRAWN IN THROUGH THE MIXED-FLOW BYPASS DAMPERS SHALL BE EQUAL TO THE TOTAL LAB EXHAUST AIRFLOW THROUGH THE HOODS.
5. REFER TO ELECTRICAL PLAN FOR STARTER AND DISCONNECT REQUIREMENTS.
6. EF-4 & EF-5 SHALL BE OPERATED BY REVERSE ACTING THERMOSTATS.
7. SEE PROJECT SPECIFICATIONS FOR ALL OTHER FAN OPTIONS AND REQUIREMENTS.

REGISTER, GRILLE AND DIFFUSER SCHEDULE — R-G-D

TAG	TYPE	MOUNTING	FACE TYPE	SIZE	MTL	FINISH	REMARKS	BASED ON MFR/MODEL
EG-A	EXHAUST	CEILING	RECT	12"x12"	AL	NOTE 2	SEE NOTES	TITUS – 350FL
EG-B	EXHAUST	CEILING	RECT	16"x16"	AL	NOTE 2	SEE NOTES	TITUS – 350FL
TG-A	TRANSFER	WALL	RECT	18"x12"	AL	NOTE 2	SEE NOTES	TITUS – 350FL

NOTES: 1. REFER TO DRAWINGS FOR DIFFUSER & GRILLE NECK SIZES.
2. COORDINATE FINISH WITH ARCHITECT
3. PROVIDE WITH MOUNTING TO SUITE ARCHITECTURAL CEILING PLAN

UNIT HEATER SCHEDULE — UH

TAG	AIRFLOW (CFM)	CABINET TYPE	COIL TYPE	HEAT CAP. (MBH)	STEAM COIL		MOTOR DATA				ACCESSORIES	BASED ON MFR / MODEL
					FINAL AIR TEMP. °F	LBS / HR	W	RPM	V	PH	HZ		
UH-1	330	HORIZONTAL	STEAM	16.2	105	16.2	9	1350	115	1	60	SEE NOTES	STERLING HS
UH-2	330	HORIZONTAL	STEAM	16.2	105	16.2	9	1350	115	1	60	SEE NOTES	STERLING HS
UH-3	330	HORIZONTAL	STEAM	16.2	105	16.2	9	1350	115	1	60	SEE NOTES	STERLING HS

NOTES: 1. PROVIDE WITH DISCONNECT.
2. ALL THERMOSTATS SHALL BE DDC BY ATC.
3. SUSPEND WITH SPRING ISOLATORS.
4. PERFORMANCE BASED ON 2 PSI STEAM AND 60°F ENTERING AIR TEMP.

GRAVITY VENTILATOR SCHEDULE — GV

TAG	SERVES	TYPE	CFM	SP (IN WG)	HOUSING			ROOF CURB			DAMPER	BASED ON MFR/MODEL
					DESIGN	MATERIAL	THROAT (L"xW")	OVERALL (L"xW"xH")	TYPE	MTL	HGT		
GV-1	UV-416	INTAKE	350	0.04	LOW-PROFILE	ALUM.	14"x14"	25"x24"x16"	RAISED CANT	GALV. STL.	18"	BACKDRAFT	GREENHECK FGI
GV-2	UV-427	INTAKE	600	0.07	LOW-PROFILE	ALUM.	14"x14"	25"x24"x16"	RAISED CANT	GALV. STL.	18"	BACKDRAFT	GREENHECK FGI

NOTES:

SPLIT SYSTEM AIR CONDITIONER SCHEDULE — FC/ACCU

TAG	TOTAL MBH	FAN DATA		ELECTRICAL				BASED ON MFR/MODEL	TAG	GENERAL DATA				ELECTRICAL				NOTES	BASED ON MFR/MODEL
		TOTAL CFM	MOTOR FLA	V	Ph	MCA	MOCP			AMB °F	SEER	COMP QTY	FAN QTY	V	PH	MCA	MOCP		
AC-1	EXISTING TO REMAIN								CU-1	EXISTING TO REMAIN									
AC-2	9.5	335	0.95	115	1	1.2	15	MITSUBISHI MS	CU-2	95	13	1	1	115	1	14	15	SEE NOTES	MITSUBISHI MU

NOTES: 1. PROVIDE WITH INTERIOR AND EXTERIOR DISCONNECTS.
2. PROVIDE WITH LOW AMBIENT START OPTION.
3. REFRIGERANT TYPE SHALL BE R-410A.
4. PROVIDE WITH WIRELESS CONTROLLER.
5. PROVIDE WITH CONDENSATE PUMP.

LOUVER SCHEDULE — LU

TAG	TYPE	SERVES	AIRFLOW (CFM)	MAX. VEL. (FPM)	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	FREE AREA (SQ.FT.)	NOTES	BASED ON MFR/MODEL
LU-1	WALL INTAKE	STEAM ENTRANCE	400	400	16	24	6	1	1, 2	GREENHECK EDJ-601
LU-2	WALL INTAKE	GROWTH CHAMBER	1700	500	32	32	6	3.5	1, 2	GREENHECK EDJ-601
LU-3	WALL EXHAUST	GROWTH CHAMBER	1700	500	32	32	6	3.5	1, 2	GREENHECK EDJ-601
LU-4	WALL INTAKE	UNIT VENTILATOR	350	750	12	24	2	0.5	2	GREENHECK EDJ-202

NOTES: 1. PROVIDE WITH MOTORIZED DAMPER INTERLOCKED TO OPEN WITH ROOM FAN OPERATION. SEE PLANS.
2. COORDINATE FINISH AND COLOR SELECTION WITH ARCHITECT.

MECHANICAL / ELECTRICAL ENGINEERS
FITZEMEYER & TOCCI ASSOCIATES, INC.
92 Montvale Ave, Suite 4100
Stoneham, MA 02180
Tel: 781-481-0210
Fax: 781-481-0203
email: info@f-t.com
www.f-t.com
Project No.: 09088.00

REV. NO.	DESCRIPTION	BY	APP'D	DATE
-	-	-	-	-
-	ISSUED FOR BID	-	-	08.25.10
-	100% CONSTRUCTION DOCUMENTS	-	-	08.20.10

UNIVERSITY OF MASSACHUSETTS
FACILITIES PLANNING DIVISION

MORRILL II & III VENTILATION UPGRADE

MECHANICAL SCHEDULES

	BY	DATE
DRN.	-	-
APP'D	-	-
CKD.	-	-
APP'D	-	-

PROJECT NO. 08-001594 | CONTRACT NO. UMA 11-04
SCALE NO SCALE | SHEET 58 OF 71
DRAWING NUMBER D-A-127/290-08-001594- M18

W:\2009\09088.00 - UMA Morrill 3\Plot\09088M18.dwg Aug 19, 2010 - 3:43pm